

FR101G THRU FR107G

Glass Passivated Fast Recovery Rectifiers

Reverse Voltage – 50 to 1000 V

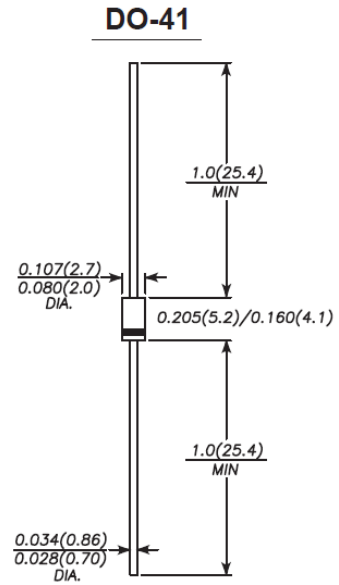
Forward Current – 1 A

Features

- Fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability

Mechanical Data

- Case: Molded plastic, DO-41
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any



Maximum Ratings and Electrical Characteristics

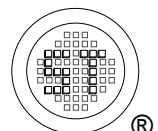
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half-wave, 60 Hz, resistive or inductive load, for capacitive load, derate current by 20%.

Parameter	Symbols	FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at 1 A	V_F	1.3							V
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	5							μA
		50							
Typical Junction Capacitance ¹⁾	C_J	15							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Maximum Reverse Recovery Time ³⁾	t_{rr}	150				250	500		ns
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							$^\circ\text{C}$

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C.

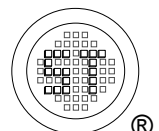
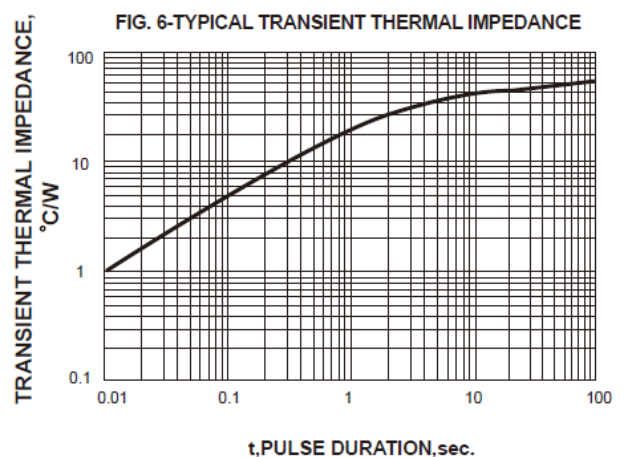
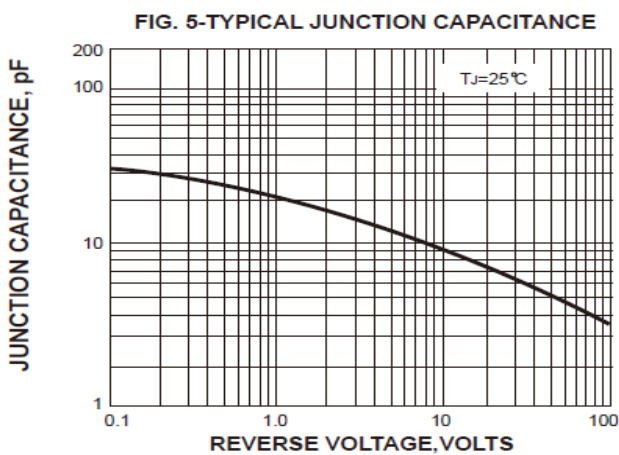
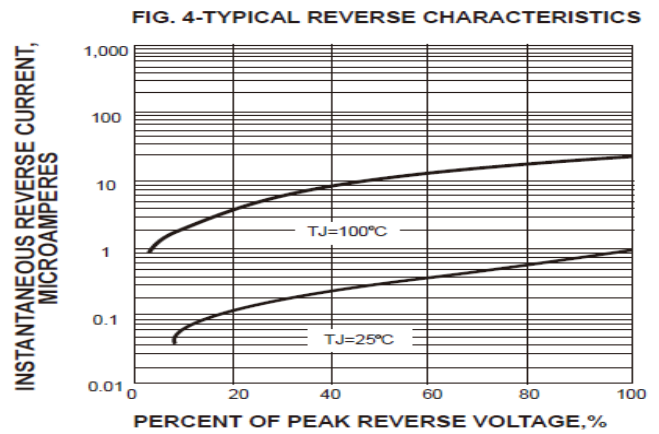
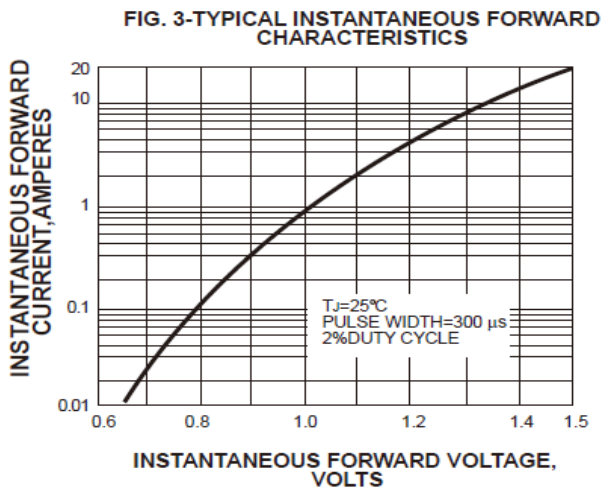
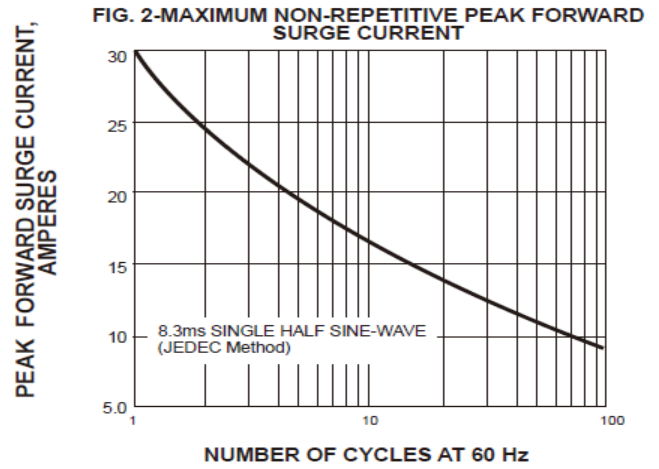
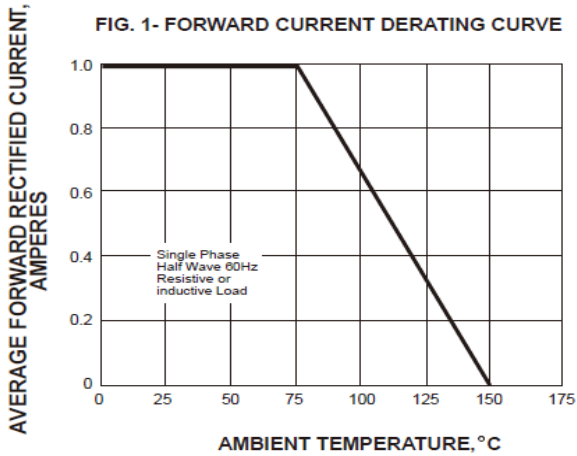
²⁾ Thermal resistance from junction to ambient 0.375"(9.5 mm) lead length P.C.B mounted.

³⁾ Reverse recovery test conditions: $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.



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Electrical Characteristic Curves



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Marking information

" FR***G " = Part No.

Type	Marking	Type	Marking
FR101G	FR101G	FR102G	FR102G
FR103G	FR103G	FR104G	FR104G
FR105G	FR105G	FR106G	FR106G
FR107G	FR107G		

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